DAFTAR PUSTAKA

Adesogan, A.T., M. B. Salawu, A. B. Ross, D. R. Davies, dan A. E. Brooks. 2003. Effect of lactobacillus buchneri, lactobacillus fermentum, leuconostoc mesenteroides inoculants, or a chemical additive on the fermentation, aerobic stability, and nutritive value of crimped wheat grains. Journal of Dairy Science. 86: 1789–1796.

Adesogan, A. T., Z. X. Ma, J. J. Romero, dan K. G. Arriola. 2014. Ruminant nutrition symposium: Improving cell wall digestion and animal performance with fibrolytic enzymes. Journal of Animal Science. 92(4): 1317–1330.

Adesogan, A. T., K. G. Arriola, Y. Jiang, A. Oyebade, E. M. Paula, A. A. Pech-Cervantes, J. J. Romero, L. F. Ferraretto, dan D. Vyas. 2019. Symposium review: technologies for improving fiber utilization. Journal of Dairy Science. 102(6): 5726–5755.

Aini, M., S. Rahayuni, V. Mardina, Q. Quranayati, dan N. Asiah. 2021. Bakteri Lactobacillus spp dan peranannya bagi kehidupan. Jurnal Jeumpa. 8(2): 614–624.

Armin M., J. Mustabi, dan A. Asriany. 2021. Kandungan NDF dan ADF silase pakan komplit yang berbahan dasar eceng gondok (*Eichornia crassipes*) dengan lama fermentasi berbeda. Bulletin Makanan Ternak 15(1): 21–29.

Arriola, K. G., A. S. Oliveira, Z. X. Ma, I. J. Lean, M. C.Giurcanu, dan A. T. Adesogan. 2017. A meta-analysis on the effect of dietary application of exogenous fibrolytic enzymes on the performance of dairy cows. Journal of Dairy Science. *100*(6): 4513–4527.

Aman, L., S. Stefanus, dan F. Gerson. 2022. Pengaruh mikroorganisme lokal (MOL) cairan rumen sapi pada level inokulum yang berbeda terhadap nilai kandungan serat jerami padi terfermentasi. Jurnal of Animal Science. 7(2): 19–22.

Andrada, E., A. Marquez, E. P. Chagra Dib, P. Gauffin-Cano, dan R. B. Medina. 2023. Corn stover silage inoculated with ferulic acid esterase producing L. johnsonii, L. plantarum, L. fermentum, and L. brevis Strains: fermentative and nutritional parameters. Fermentation. *9*(4).

Association of Official Analytical Chemist [AOAC]. 2005. Official Methods of Analysis (18 Edn). Association of Official Analytical Chemist Inc. Washington DC.

Baker, S. B. dan W. H. Summerson. 1941. The colorimetric determination of lactic acid in biological material J. Biol. Chem.138: 546–554.

Bao, J., G. Ge, Z. Wang, Y. Xiao, M. Zhao, L. Sun, Y. Wang, J. Zhang, Y. Jia, dan S. Du. 2023. Effect of isolated lactic acid bacteria on the quality and bacterial diversity of native grass silage. Frontiers in Plant Science. *14*(7): 1–15.

Bernardes, T. F., J. L. P. Daniel, A. T. Adesogan, T. A. Mcallister, P. Drouin, L. G. Nussio, dan P. Huhtanen. 2018. Silage review : Unique

challenges of silages made in hot and cold regions 1. Journal of Dairy Science. *101*(5): 4001–4019.

Bai, B., R. Qiu, L. Sun, J. Bao, Y. Liu, G. Ge, Y. Jia, dan Z. Wang. 2024. Effect isolated lactic acid bacteria inoculation on the quality, bacterial composition and metabolic characterization of Caragana korshinskii silage. Chemical and Biological Technologies in Agriculture. *11*(1): 1–16.

Bai, J., Z. Ding, W. Ke, D. Xu, M. Wang, W. Huang, Y Zhang, F. Liu,dan X. Guo. 2021. Different lactic acid bacteria and their combinations regulated the fermentation process of ensiled alfalfa: ensiling characteristics, dynamics of bacterial community and their functional shifts. Microbial Biotechnology. *14*(3): 1171–1182.

Blajman, J . E., G. Vinderola, R. B. Paez, dan M. L. Signorini. 2020. The role of homofermentative and heterofermentative lactic acid bacteria for alfalfa silage: a meta-analysis. The Journal of Agricultural Science. 158: 1–12.

Blajman, J. E., R. B. Páez, C. G. Vinderola, M. S. Lingua, dan M. L. Signorini. 2018. A meta-analysis on the effectiveness of homofermentative and heterofermentative lactic acid bacteria for corn silage. Journal of Applied Microbiology. 125(6): 1655–1669.

Bolsen, K. K., G. Ashbell dan J. M. Wilkinson. 1995. Silage additives. In. R. J. Wallace and A. Chesson. (Eds). Biotechnology in Animal Feeds and Animal Feeding. VCH, Weinheim.

Borreani, G., E. Tabacco, R. J. Schmidt, B. J. Holmes, dan R. E. Muck. 2018. Silage review: factors affecting dry matter and quality losses in silages. Journal of Dairy Science. 101(5): 3952–3979.

Caton, B. P., M. Mortimer, J. E. Hill, dan D. E. Jhonson. 2011. Panduan Lapang Praktis Untuk Gulma Padi di Asia. International Rice Research Institute. Los Banos.

Chaney, A. L dan E. P. Marbach. 1962. Modified reagent for determination of urea and ammonia. Journal clinical chemistry. 8: 130–132.

Chalisty, V. D., R. Utomo, dan Z. Bachruddin. 2017. Pengaruh penambahan molases, Lactobacillus plantarum, Trichoderma viride, dan campurannya terhadap kualitas silase total campuran hijauan. Buletin Peternakan. 41(4): 431–438.

Chauhan, N., N. Kumari, V. Mani, D. Pradhan, G. R. Gowane, S. Kumar, dan N, Tyagi. 2024. Effects of lactiplantibacillus plantarum, limosilactobacillus fermentum, and propionic acid on the fermentation process of sugarcane tops silages along with variations in pH, yeast and mould count after aerobic exposure. Waste and Biomass Valorization. *15*(4): 2215–2230.

Chen, Y. Dan Z. G. Weinberg. 2009. Changes During Aerobic Exposure of Wheat Silages. Animal Feed Science and Technology. 154: 76–82.

Chen, Q., B. Yu, Y. Zhu, H. Xiong, Y. Guo, D. Liu, dan B. Sun. 2025. Effects of different concentrations of lactiplantibacillus plantarum and bacillus licheniformis on silage fermentation parameter, chemical

composition and microbial community of Pennisetum sinese. Frontiers in Microbiology. *16*(3): 1–15.

Coblentz, W.K., dan Akins, M.S. (2018). Silage and haylage. in reference module in food science. Elsevier.

Coblentz, W. K., dan M. S. Akins. 2018. Silage review: recent advances and future technologies for baled silages. Journal of Dairy Science. *101*(5): 4075–4092.

Da Costa, M. L. L., A. S. D. C. Rezende, M. G. Fonseca, J. Lage, P. G. Pimentel, I. Y. Mizubuti, G. P. De Freitas, G. R. Moreira, Â. M. Q. Lana, dan E. D. O. S. Saliba. 2018. Fermentation pattern of tropical grass haylage and digestibility compared to hay in equine diet. Semina:Ciencias Agrarias. *39*(5): 2125–2132.

Desta, S. T., Yuan, X. Li, dan T. Shao. (2016). Ensiling characteristics, structural and nonstructural carbohydrate composition and enzymatic digestibility of Napier grass ensiled with additives. Bioresource Technology. 221: 447–454.

Duvnjak, M., L. Duniere, B. Andrieu, E. Chevaux, dan C. Villot. 2023. Effect of heterofermentative and homofermentative bacteria inoculant in difficult to ensile grass silage after 15 days of fermentation. Animal Science Proceedings. 14(2): 549−603.

Edvan, R. L., R. R. D. Nascimento, D. Biagiotti, L. F. R. Camboim, L. D. S. Barros, T. P. D. e Silva, M. J. de Araújo, dan L. R. Bezerra. 2024. Quality characteristics of haylage from forage grasses of tropical pastures: losses, gas production, nutritional value, microbial population and organic acids. Semina:Ciencias Agrarias. 45(6): 1713–1732.

Erna, S.N., Hilakore, M.A. dan E.D.W. Lawa. 2023. Efek penggunaan mikroorganisme lokal dalam pembuatan amofer rumput kume (*Sorghum plumosum var. Timorense*) terhadap komponen serat. Jurnal Ilmiah Peternakan. 5(1): 24–32.

Duniere, L., J. Sindou, D. F. Chaucheyras, I. Chevallier, dan S. D. Thevenot. 2013. Silage processing and strategies to prevent persistence of undesirable microorganisms. Animal Feed Science and Technology. 182(1-4): 1−15.

Fachrial, E., Harmileni, dan S. Anggraini. 2019. Pengantar Teknik Laboratorium Mikrobiologi dan Pengenalan Bakteri Asam Laktat. In *Unpri Press*.

Fadillah, C. I. dan A. S. Wajizah. 2022. Evaluasi kualitas fisik dan produksi asam laktat silase tebon jagung yang diinokulasi dengan Lactobacillus plantarum dan Saccharomyces cerevisiae sebagai pakan ruminansia. Jurnal Ilmiah Mahasiswa Pertanian. 7(3): 213−219.

Fauzi, M., Jiyanto, dan P. Anwar. 2021. Pengaruh ensilase terhadap kualitas fisik silase pelepah sawit dengan cairan yang di inovasikan asam lakat batang pisang. Jurnal Green Swarnadwipa. 10(3): 397–404.

Fariani, A. dan E. Evitayani 2008. The potency of swamp grass as ruminant feed: Grass production, carrying capacity and fiber fraction. Journal of the Indonesian Tropical Animal Agriculture. 33(4): 299−304.

Fariani, A., dan S. Akhadiarto. 2012. Pengaruh lama ensilase terhadap kualitas fraksi serat kasar limbah pucuk tebu (*Saccaharum officibarum*) yang diinokulasikan dengan bakteri asam laktat. Jurnal Teknologi Lingkungan. *13*(1): 85–92.

Ferreira, D. J., R. P. Lana, A. M. Zanine, E. M. Santos, C. M. Veloso, dan G. A. Ribeiro. 2013. Silage fermentation and chemical composition of elephant grass inoculated with rumen strains of Streptococcus bovis. Animal Feed Science and Technology. *183*(1): 22–28.

Figueroa, C. B., L. P. Cordero, dan P. C. Hernandez. 2014. Evalucion del ensilaje del pastro ratana (*Ischaemum indicum* HOUTT.) con tres diferentes aditivos[1]. Argonnomia Mesoamericana. 25(2): 297−311.

Fikran, M. C., Samadi, dan S. Wajizah. 2023. Evaluasi kualitas nutrisi silase rumput odot yang diinokulasi dengan *lactobacillus plantarum* dan *kluyveromyces lactis*. Jurnal Ilmiah Mahasiswa Pertanian. 8(3): 295−305.

Gilliland, H. B. 1971. A revised flora of Malaya: Grasses of Malaya. Botanical Gardens Office. 3(319).

Hanafi, N. D. 2008. Teknologi Pengawetan Pakan Ternak. Universitas Sumatera Utara.

Hartadi, H., Tillman, A. D. Reksohadiprodjo, S., Kusumo, S. P. dan S. Lendoseokodjo. 1991. Ilmu Makanan Ternak Dasar. Gadjah Mada University Press. Yogyakarta.

Harahap, A. E. 2014. Simulasi bakteri asam laktat yang diisolasi dari silase daun pelepah sawit pada saluran pencernaan ayam. Jurnal Peternakan. *11*(2): 43–47.

Herlinae., Yemima, dan Rumiasih. 2015. Pengaruh aditif EM4 dan gula merah terhadap karakteristik silase rumput gajah (*pennisetum purpureum*). Jurnal Ilmu Hewani Tropika. 4(1).

Hidayat, N. (2014). Karakteristik dan kualitas silase rumput raja menggunakan berbagai sumber dan tingkat penambahan karbohidrat fermentable. Jurnal Ilmiah Fakultas Peternakan Universitas Jendral Soedirman. 14(1): 42−49.

Iskandar, D. M., A. Irsyammawati, dan I. Subagiyo. 2024. Pengaruh penambahan EM4 terhadap pH, bakteri asam laktat, dan produksi gas silase pakan lengkap berbasis rumput gajah (*Pennisetum purpureum*). Tropical Animal Science. 6(2): 85−93.

Irwan, Z. M., dan R. Titin. 2016. Kualitas Silase Rumput Gajah Yang diberi Aditif Bakteri L. plantarum 1A-2. Prosiding Hasil-Hasil Penelitian. 23–31.

Henderson, N. 1993. Silage additives. Anim Feed Sci.Technol. 45:35−36.

Jalc, D. 2009. The use of bacterial inoculant for grass silage: their effects on nutrient composition and fermentation parameters in grass Silage. Czech Journal of Animal Science. 54(2): 84–91.

Kim, J. G., H. S. Park, dan S. H. Lee. 2021. Effects of Lactobacillus plantarum inoculation on fermentation characteristics and nutritive value of timothy haylage. Journal of Animal Science and Technology. 63(4): 834−845.

Kim, J. G., J. S. Ham, H. S. Park, C. Huh, dan B. Park. 2017. Development of a new lactic acid bacterial inoculant for fresh rice straw silage. Asian Australas Journal of Animal Science 30(7): 950 – 956.

Kim, D., K. D. Lee, dan C. Choi. 2021. Role of LAB in silage fermentation: effect on nutritional quality and organic acid production—An overview. AIMS Agriculture and Food. *6*(1): 216–234.

Kravchenko, N. O dan O. M. Dmytruk. 2022. Metabolic Activity of Lactic Acid Bacterial Strains After Their Introduction Into AlfaAlfa Haylage. Mikrokontroler. 36(2): 47-54.

Kung, L., Shaver, R.D., Grant, R.J., and Schmidt, R.J. (2018). Silage review: Interpretation of chemical, microbial, and organoleptic components of silages. Journal of Dairy Science. 101(5): 4020-4033.

Kurniawan, D., Erwanto, dan F. Fathul. 2015. Pengaruh Penambahan Berbagai Starter pada Pembuatan Silase terhadap Kualitas Fisik dan pH Silase Ransum Berbasis Limbah Pertanian. Jurnal Ilmiah Peternakan Terpadu. 3(4): 191– 195.

Koc, F., S. O. Aksoy, A. A. Okur, G. Celikyurt, D. Korucu, dan M. L. Ozduven. 2017. Effect of pre-fermented juice, lactobacillus plantarum and lactobacillus buchneri on the fermentation characteristics and aerobic stability of high dry matter alfalfa bale silage. Journal of Animal and Plant Sciences. *27*(6): 1766–1773.

Kojo, R. M., D. Rustandi, Y. R. L. Tulung, and S. S. Malalantang. 2015. Pengaruh penambahan dedak padi dan tepung jagung terhadap kualitas fisik silase rumput gajah (Pennisetum purpureumcv.Hawaii). Zootec. 35(1): 21–28.

Köninger, M., A. V. Velsen-Zerweck, C. Eiberger, C. Löffler, A. Töpper, x C. Töppe, B. Reckels, dan I. Vervuert. 2024. Nutrient composition and feed hygiene of alfalfa, comparison of feed intake and selected metabolic parameters in horses fed alfalfa haylage, alfalfa hay or meadow hay. Animals. 14(6).

Lamid, M., R. S. Wahjuni, dan T. Nurhajati. 2016. Pengolahan silase dari hay (haylase) sebagai bank pakan hijaun dengan konsentrat untuk penggemukan sapi potong di kecamatan Arosbaya, kabupaten Bangkalan, Madura. Jurnal Agro veteriner. 5: 74 – 80.

Landupari, M., A. H. B. Foekh, dan K. B. Utami. 2020. Pembuatan silase rumput gajah odot (Pennisetum Purpureum cv. Mott) dengan penambahan berbagai dosis molasses. Jurnal Peternakan Indonesia. *22*(2): 249–253.

Li, P., Y. Zhang, W. Gou, Q. Cheng, S. Bai, dan Y Cai. 2018. Silage fermentation and bacterial community of bur clover, annual ryegrass and their mixtures prepared with microbial inoculant and chemical additive. Animal Feed Science and Technology. 235: 115−122.

Li, D., K. Ni, Y. Zhang, Y. Lin, dan F. Yang. 2019. Fermentation characteristic, chemical composition and microbial community of tropical forage silage under different temperatures. Asian-Australasian Journal of Animal Sciences. 32(5): 665−674.

Li, H., T. Wang, M. Tahir, J. Zhang, J. Sun, T. Xia, F. Huang, Y. Liu, Z. Liu, dan J. Zhong. 2022. Influence of lactobacillus plantarum inoculation on the silage quality of intercropped lablab purpureus and sweet sorghum grown in saline-alkaline region. Frontiers in Microbiology. 13.

Lim, C. A. A., T. H. Awan, P. C. S. Cruz, dan B. S. Chauhan. 2015. Influence of enviromental factors, cultural, practices, and herbicide application on seed germination and emergence ecology of *ischaemum rugosum* Salisb. Journal Plos One. 10(9): 1−37.

Liao, C., X. Tang, M. Li, G. Lu, X. Huang, L. Li, M. Zhang, Y. Xie, C. Chen, dan P. Li. 2022. Effect of lactic acid bacteria, yeast, and their mixture on the chemical composition, fermentation quality, and bacterial community of cellulase-treated Pennisetum sinese silage. Frontiers in Microbiology. 13(10). 1–11.

Liu, Y., Y. Wang, L. Zhang, L. Liu, T. Cai, C. Chang, D. Sa, Q. Yin, X. Jiang, Y. Li, dan Q. Lu. 2023. The effect of lactobacillus planturum YQM48 inoculation on the quality and microbial community structure of Alfalfa silage cultured in saline-alkali soil. Fermentation. 9(6).

Liu, Q., Z. Dong, dan T. Shao. 2018. Effect of additives on fatty acid profile of high moisture alfalfa silage during ensiling and after exposure to air. Animal Feed Science and Technology. 236: 29−38.

Lynch, J. P., J. Baah, dan K. A. Beauchemin. 2019. Conservation, fiber digestibility, and nutritive value of corn harvested at 2 cutting heights and ensiled with fibrolytic enzymes, either alone or with a ferulic acid esterase-producing inoculant. Journal of Dairy Science. 102(4): 2697−2712.

McDonald, P. 1981. Biochemistry of Silage. John Wiley and Sons, New York.

McDonald, P., R. A. Edwards, J. F. D. Edwards, C. A. Morgan, dan L. A. Sinclair. 2012. Animal Nutrition (7th ed.). Pearson Education Limited. London.

McDonald, P., R. A. Edwards, J. F. D. Greenhalgh, C. A. Morgan, L. A. Sinclair, dan R. G. Wilkinson. 2010. Animal Nutrition. 7th Edition. Pearson Education Limited. Harlow England.

McDonald, P., R. A. Edwards, J. F. D. Greenhalgh, C. A. Morgan, L. A. Sinclair, dan R. G. Wilkinson. 2011. Animal Nutrition. 7th Ed. Pearson. Canada.

Muck, R. E., E. M. G. Nadeau, T. A. Mcallister, F. E. Contreras-Govea, M. C. Santos, dan L. Kung. 2018. Silage review: Recent advances and future uses of silage additives. Journal of Dairy Science. *101*(5): 3980–4000.

Muhakka, M., A. Wijaya, dan M. Ammar. 2015. Nutritional dried matter, crude protein and crude fiber on lowland tidal grass fermented by probiotic microorganisms for use bali cattle feed. Animal Production. 17(1): 24-29.

Muller, C. E. 2018. Silage and Haylage for Horses. Grass and Forage Science. 73(4): 815-827.

Mönki, J., dan Mykkänen, A. (2024). Lipids in equine airway inflammation: an overview of current knowledge. Animals. *14*(12).

Natsir, M. H., Mashudi, O. Sjofjan, A. Irsyamawati, dan Hartutik. 2019. Teknologi Pengolahan Bahan Pakan Ternak. UB Press. Malang.

Ni, K., Y. Wang, Y. Cai, dan H. Pang. 2015. Natural lactic acid bacteria population and silage fermentation of whole-crop wheat. Asian-Australasian Journal of Animal Sciences. *28*(8): 1123–1132.

Ni, K., F. Wang, B. Zhu, J. Yang, G. Zhou, Y. Pan, dan J. Zhong. 2017. Effects of lactic acid bacteria and molasses additives on the microbial community and fermentation quality of soybean silage. Bioresource Technology. 238: 706−715.

Ni, K., Y. Wang, Y. Cai, dan H Pang. 2019. Natural lactic acid bacteria population and silage fermentation of whole-crop wheat. Asian-Australasian Journal of Animal Sciences. 32(8): 1195-1203.

Oliveira, A. S., Z. G. Weinberg, I. M. Ogunade, A. A. P. Cervantes, K. G. Arriola, Y. Jiang, D. Kim, X. Li, M. C. M. Gonçalves, D. Vyas, dan A. T. Adesogan. 2017. Meta-analysis of effects of inoculation with homofermentative and facultative heterofermentative lactic acid bacteria on silage fermentation, aerobic stability, and the performance of dairy cows. Journal of Dairy Science. *100*(6): 4587–4603.

Ortiz, A., S. Blanco, G. Arana, L. Lopez, S. Torres, Y. Quintana, P. Perez, C. Zambrano, dan A. Fischer. 2013. Estado actual de la resistencia de ischaemum rugosum Salisb.Al herbicida bispiribac-sodio en venezuela. Journal Bioagro. 25(2): 79−89.

Özkan, F., dan S. Deniz. 2023. Determining the quality of sugar beet pulp, lenox, and ryegrass silages used in feeding dairy cattle, in comparison to corn silage. Turkish Journal of Veterinary and Animal Sciences. 47(6): 565–575.

Pahlow, G., R. E. Muck, F. Driehuis, S. J. W. H. O. Elferink, dan S. F. Spoelstra. 2015. Microbiology of ensiling silage science and technology. American Society of Agronomy. 16(1): 31−43.

Paul, P., B. Mahesh, dan B. S. Meena. 2018. Preservation of Forage Crops. Apple Academic Press. India.

Putra, A. H., P. Anwar, dan Jiyanto. 2021. Kualitas fisik silase daun kelapa sawit dengan penambahan bahan adiktif ekstrak cairan asam laktat. Jurnal Green Swarnadwipa. 10(3): 361−362.

Puntillo, M., M. Gaggiotti, J. M. Oteiza, A. Binetti, A. Massera, dan G. Vinderola. 2020. Potential of lactic acid bacteria isolated from different forages as silage inoculants for improving fermentation

quality and aerobic stability. Frontiers in Microbiology. 11(1): 1–17.

Pramadana, I., Syahrir, dan M. S. Arifuddin. 2024. Pengaruh dedak padi fermentasi pada silase isi rumen sapi dengan lama penyimpanan berbeda terhadap kualitas fisik, pH dan kandungan nutrien silase. Mitra Sains. 12(1): 1–15.

Prawiradiputra, B. R. (2011). Tanaman pakan ternak untuk lahan sub-optimal. Wartazoa. 21(4): 171−180.

Rahman, M. M., R. B. Abdullah, dan W. K. Wan Embong. 2016. Effect of sample preparation methods on the chemical composition of tropical grasses. Asian-Australasian Journal of Animal Sciences. 29(8):1200−1206.

Rahmaniya, N. 2021. Karekteristik strain bakteri asam laktat pada silase total mixed ration yang diinokulasikan BAL asal tanaman daun jagung. Jurnal Pendidikan Ilmu Pengetahuan Alam. *2*(2): 1–5.

Randu, M. D. S., F. S. Suek, dan B. Hartono. 2017. Status keberlanjutan dimensi ekologi dan sosial budaya dalam pengembangan kuda pasola di Kabupaten Sumba Barat Daya, Indonesia. Seminar Nasional Laboratorium Riset Terpadu Undana. 2(1):77−83.

Rayno, J. B., R. C. Lopez, dan G. W. Garcia. 2015. Effect of cutting age on dry matter yield and chemical composition of five tropical grasses. tropical agriculture. 92(3): 305−314.

Reich, L. J., dan J. L. Kung. 2010. Effects of combining Lactobacillus buchneri 40788 with various lactic acid bacteria on the fermentation and aerobic stability of corn silage. Animal Feed Science and Technology. 159(3-4): 105−109.

Ridwan, R., I. Rusmana, Y. Widyastuti, K.G. Wiryawan, B. Prasetya, M. Sakamoto, dan M. Ohkuma. 2015. Fermentation characteristics and microbial diversity of tropical grass-legumes silages. Asian-Australasian Journal of Animal Sciences. 28(4): 511−518.

Ridwan N., D. S. Hadjar, dan I. Hernaman. 2020. Kadar asam laktat, amonia dan ph silase limbah singkong dengan pemberian molases berbeda. Majalah Ilmiah Peternakan. 23(1): 30–34.

Rostini, T., dan I. Zakir. 2017. Performans Produksi, Jumlah nematoda usus dan profil metabolik darah kambing yang Diberi pakan hijauan rawa kalimantan. Jurnal Veteriner. 18(3): 469−477.

Sahid, S. A., B. Ayuningsih, dan I. Hernaman. 2022. Pengaruh lama fermentasi terhadap kandungan lignin dan selulosa silase tebon jagung (*Zea mays*) dengan adiktif dedak fermentasi. Jurnal Nutrisi Ternak Tropis dan Ilmu Pakan. 4(1):1−9.

Sanchez, P. C. 2008. Philippine Fermented Foods: Principles and Technology. University of Hawaii Press.

Schroeder, J.W. 2004. Silage Fermentation and Preservation. Extension Dairy Specialist. AS-1254.

Schmithausen, A. J., H. F. Deeken, K. Gerlach, M. Trimborn, K. Weiß, W. Büscher, dan G. C. Maack. 2022. Greenhouse gas formation during the ensiling process of grass and lucerne silage. Journal of

Environmental Management. *304*(2): 1−12.

Silva, V. P., O. G. Pereira, E. S. Leandro, T. C. D. Silva, K. G. Ribeiro, H. C. Mantovani, dan S. A. Santos. 2016. Effects of lactic acid bacteria with bacteriocinogenic potential on the fermentation profile and chemical composition of alfalfa silage in tropical conditions. Journal of Dairy Science. *99*(3): 1895–1902.

Silva, T. C. D, L. D. D. Silva, E. M. Santos, J. S. Oliveira, dan A. F. Perazzo. 2017. Importance of the fermentation to produce high-quality silage. Fermentation processes. 8(1): 1−20.

Singh, B., S.K. Gautam, M.S. Chauhan, dan S.K Singla. 2015. Textbook of Animal Biotechnology. TERI Press. New Delhi.

Siregar, M.E. 2012. Karakteristik dan potensi rumput paitan (ischaemum sp.) sebagai pakan ternak ruminansia. Jurnal Ilmu Ternak dan Veteriner. 17(2):142−148.

Si, H., H. Liu, Z. Li, W. Nan, C. Jin, Y. Sui, dan G. Li. 2018. Effect of lactobacillus plantarum and lactobacillus buchneri addition on fermentation bacterial community and aerobic stability in lucerne silage. Animal Production Science. 59(8): 1528−1536.

Si, Q., Z. Wang, W. Liu, M. Liu, G. Ge, Y. Jia, dan S. Du. 2023. Influence of cellulase or lactiplantibacillus plantarum on the ensiling performance and bacterial community in mixed silage of alfalfa and leymus chinensis. Microorganisms. *11*(2): 1–18.

Soundharrajan, I., D. H. Kim, S. Srisesharam, P. Kuppusamy, H.S. Park, Y.H. Yoon, W.G. Kim, Y.G. Song, dan K.H. Choi. 2017. Application of customised bacterial inoculants for grass haylage production and its effectivennes on nutrient composition and fermentation quality of haylage. Bioctech. 3(7): 321−330.

Su, R., K. Ni, T. Wang, X. Yang, J. Zhang, Y. Liu, W. Shi, L. Yan, C. Jie, dan J. Zhong. 2019. Effects of ferulic acid esterase-producing lactobacillus fermentum and cellulase additives on the fermentation quality and microbial community of alfalfa silage. PeerJ. 2019(10): 1–18.

Suwitary, N. K. E., L. Suariani, dan N. M. Yusiastari. 2018. Kualitas silase komplit berbasis limbah kulit jagung manis dengan berbagai tingkat penggunaan starbio. Jurnal Lingungan dan Pembangunan. 2(1): 1−7.

Suparyanto dan Rosad. 2019. Pengolahan pakan hijauan rawa. *Suparyanto* Dan Rosad. 5(3): 248–253.

Wang, Q., R. Wang, C. Wang, W. Dong, Z. Zhang, L. Zhao, dan X. Zhang. 2022. Effects of cellulase and lactobacillus plantarum on fermentation quality, chemical composition, and microbial community of mixed silage of whole-plant corn and peanut vines. Applied Biochemistry and Biotechnology. 194(6): 2465–2480.

Weinberg, Z. G., Y. Chen, dan R. Solomon. 2016. The Quality of Commercial Wheat Silages in Israel. Journal of Dairy Science. 92(2): 638−644.

Weinberg, Z. G. dan R. E Muck. 2016. New trends and opportunities in the development and use of inoculants for silage. FEMS Microbiology Reviews. 40(3): 218−240.

Wahyudi, A. 2019. Silase: Fermentasi Hijauan dan Pakan Komplit Ruminansia. UMM Press. Malang.

Wati, W. S., Mashudi, dan A. Isyammawati. 2018. Kualitas silase rumput odot (*pennisetum purpureum cv. Mott*) dengan penambahan *lactobacillus plantarum* dan molasses pada waktu inkubasi yang berbeda. Jurnal Nutrisi Ternak Tropis. 1(1): 45–53.

Widyastuti, Y. 2008. Fermentasi Silase dan Manfaat Probiotik Silase bagi Ruminansia. Jurnal Media Peternakan. 31(3): 225–232.

Widodo, D.S. 2014. Pengaruh lama fermentasi Dan penambahan lactobacillus plantarum dan lactobacillus fermentum terhadap kualitas silase tebon jagung (zea mays). Skripsi. Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Wina, E., dan I. W. R. Susana. 2013. Manfaat lemak terproteksi untuk meningkatkan produksi dan reproduksi ternak ruminansia. Jurnal Wartazoa. *23*(4): 176–184.

Xiao, Y., L. Sun, X. Xin, L. Xu, S. Du, Y. Xiao, L. Sun, X. Xin, L. Xu, dan S. Du. 2023. Physicochemical characteristic and microbial community succession during oat silage prepared without or with *lactiplantibacillus plantarum or lentilactobacillus buchneri*. Microbiology Spectrum. 11(6): 1–18.

Xie, Y., S. Xu, W. Li, M. Wang, Z. Wu, J. Bao, T. Jia, dan Z. Yu. 2020. Effects of the application of *lactobacillus plantarum* inoculant and potassium sorbate on the fermentation quality, in vitro digestibility and aerobic stability of total mixed ration silage based on alfaalfa silage. Animal Feed Science and Technology. 10(12): 2229.

Xu, D., W. Ding, W. Ke, F. Li, P. Zhang, dan X. Guo. 2019. Modulation of metabolome and bacterial community in whole crop corn silage by inoculating homofermentative lactobacillus plantarumand heterofermentative lactobacillus buchneri. Frontiers in Microbiology. 10(1): 1–14.

Yanti, Y., M. Yayota, dan Y Kawamoto. 2008. Comparative study on proteolytic activity of various lactic acid bacteria strains. Journal of Animal Science. 79(6): 643−649.

Yoku, O., D. Y. Seseray, dan M. Krey. 2019. Pertumbuhan dan Karakteristik morfologi rumput (*ischaemum sp*.) tanah asal amban dan kebar dengan level dosis pupuk NPK yang Berbeda. Jurnal Ilmu Tumbuhan Pakan Tropik. 7(1): 4−9.

You, S., S. Du, G. Ge, T. Wan, dan Y. Jia. 2021. Selection of lactic acid bacteria from native grass silage and its effects as inoculant on silage fermentation. Agronomy Journal. *113*(4): 3169–3177.

Zhang, Q., Z. Yu, H. Yang, dan R. S. Na. 2015. The effects of stage of growth and additives with or without cellulase on fermentation and in

vitro degradation characteristics of Leymus chinensis silage. Grass and Forage Science. 71(4): 595−606.

Zhang, J., Y. Liu, Z. Whang, J. Bao, M. Zhao, Q. Si, P. Sun, G. Ge, dan Y. Jia. 2023. Effects of different types of LAB on dynamic fermentation quality and microbial community of native grass silage during anaerobic fermentation and aerobic exposure. Microorganisms. 11(2):513−521.

Zhang, Y., H. Yang, R. Huang, X. Wang, C. Ma, dan F. Zhang. 2022. Effects of lactiplantibacillus plantarum and lactiplantibacillus brevis on fermentation, aerobic stability, and the bacterial community of paper mulberry silage. Frontiers in Microbiology. *13*(1):1–13.

Zhao, M., J. Bao, Z. Wang, S. Du, C. Gao, D. Nan, X. Yan, dan G. Ge. 2023. Evaluation of the fermentation performance and functional properties of bacterial communities of amaranth silage supplemented with limosilactobacillus fermentum and latilactobacillus graminis. Chemical and Biological Technologies in Agriculture. *10*(1): 1–16.